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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,676	09/23/2003	Robert Aarts	NOKM.069PA	1050
40581	7590	06/30/2005	EXAMINER	
CRAWFORD MAUNU PLLC 1270 NORTHLAND DRIVE, SUITE 390 ST. PAUL, MN 55120			LAO, SUE X	
			ART UNIT	PAPER NUMBER
			2194	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,676

Applicant(s)

AARTS, ROBERT

Examiner

Sue Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-41 are pending. This action is in response to the response filed 4/4/2005.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5, 9-11, 33-35, 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beged-Dov et al (Pub No. 2002/0174241).

As to claim 40, Beged-Dov teaches a computing device (128) operable on a network (108), comprising:

a local clipboard (trusted internet clipboard service 114 and its proxy 110) for storing data (temporary storage, [0018]);

means configured to expose (local internet clipboard proxy 110 representing trusted internet clipboard service 114) the local clipboard as a service (local internet clipboard service, [0018], line 17) towards external applications (web browser, source/destination web services) having access to the computing device via the network (internet 108), and to receive (via local internet clipboard proxy 110, fig. 1) service requests (resource copy, resource paste) provided by the external applications; and

means for transferring the data (transfer information, resource copy and paste) between the local clipboard and the external applications (source/destination web services) as directed by the service requests (steps in fig. 2A, 2B). See [0017] - [0018], fig.s 1-4.

Beged-Dov does not explicitly teach that the means configured to expose the local clipboard is implemented by a processor. This, however, would have been an obvious choice.

As to claim 41, note discussion of claim 40, Beged-Dov further teaches network (108), first network entity (104) hosting at least a first application (web browser), second network entity (128) including a local clipboard for locally storing data, wherein the

second network entity further comprises: a processor configured to expose the local clipboard as a service towards the first application hosted by the first network entity (trusted internet clipboard service 114, local internet clipboard proxy), and to receive service requests provided by the first application (resource copy, resource paste); and a transceiver to transfer the data between the local clipboard and the first application as directed by the service requests (source/destination adaptors of internet clipboard server). See [0017] - [0018], fig.s 2-4.

As to claim 1, it is basically a method claim of claim 40, thus note claim 40 for discussion. Further, Beged-Dov teaches the destination node and client node can be different (fig. 1) or co-located ([0004], lines 6-10). Therefore, it would have been obvious to transfer information between the local clipboard and the external application (co-location of destination and client computers).

As to claim 2, Beged-Dov teaches exposing the local clipboard as a web service (trusted internet clipboard service serving web browser and source/destination web services). See discussion of claim 40.

As to claims 3, 4, Beged-Dov teaches to copy information from the local clipboard to the external application (resource paste), and from the external application to the local clipboard (resource copy). see[0017] - [0018], fig.s 2-4.

As to claim 5, Beged-Dov teaches recognizing selection of a resource presented to a browser application executing, and receiving the transfer indication associated with the selected resource (resource copy, resource paste). Representing a resource to a browser by its link would have been obvious.

As to claims 9, 10, Beged-Dov teaches transmitting the information from the local clipboard to the external application over the net work (resource paste), receiving the information from the external application and storing the information on the local clipboard (resource copy).

As to claim 11, Beged-Dov teaches HTTP client (browser), and exposing the local clipboard via the HTTP client (local internet clipboard proxy). See [0017] - [0018], fig.s 2-4. SOAP is a typical communication protocol used on top of HTTP I web communications, which is the case of Beged-Dov. Therefore, it would have been

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obvious to use SOAP in Beged-Dov for higher/application level internet communications.

As to claims 33, 34, these are program product claims of claims 1, 2, thus note claims 1, 2, respectively, for discussions.

As to claim 35, it is a system claim covered by claims 40 and 41. Note claims 40 and 41 for discussion.

As to claim 38, Beged-Dov teaches a server (128).

As to claim 39, wireless networks / networks over-the-air are typical networks used for web/internet access by mobile computing devices, and are typically integrated with wirelined networks. Therefore, it would have been obvious to include network over-the-air and mobile computing devices into the network/internet of Beged-Dov.

4. Claims 6-8, 12-24, 31, 32, 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beged-Dov et al as applied to claims 1, 35 in view of Maltby et al (U S Pat. 6,202,100).

As to claims 6, 7, Maltby teaches clipboard communication, including providing a notification / sending a message to an external application / clipboard service user application that information was posted to a local clipboard (receive notification that an application has submitted material to the clipboard, col. 9, lines 61-65; col. 7, lines 32-66).

Therefore, it would have been obvious to provide a notification / send a message to the external application in Beged-Dov. One of ordinary skill in the art would have been motivated to combine the teachings of Beged-Dov and Maltby because this would have reduced network traffic in relation to clipboard formats (Maltby, col. 6, lines 3-33).

As to claim 8, asynchronous event-notification services are well known, which places notifications on a network site / server and subsequently forwards the notifications. It would have been obvious to use such form of notification in Beged-Dov as modified to indicate that information was posted to the local clipboard.

As to claim 12, note discussions of claims 1, 2, 6.

As to claim 13, note discussion of claim 6.

As to claim 14, Maltby teaches translating a service request to a native call recognized by a clipboard API and executing the native call to access a local clipboard (native OLE calls resulted from CLIP SEND and CLIP RECEIVE, col. 7, line 32 - col. 8, line 29.). Note discussion of claim 6 for a motivation to combine.

As to claim 15, Beged-Dov teaches converting the data from a first format to at least a second format prior to transferring the data (transformation service 118).

As to claims 16-18, 20, Beged-Dov teaches controlling access of the external application to the local clipboard, determining whether the external application has permission to read or write the local clipboard, accessing local access control rules (authenticate, [0018]), prompting the external application for permissions (log in authentication information, [0018]).

As to claim 19, using a separate authentication service (such an authentication server) is well known. Therefore, it would have been obvious to use a separate authentication service in Beged-Dov to call another module to identify whether such permission exists.

As to claim 21, note discussion of claim 11.

As to claim 22, Beged-Dov teaches establishing a session ([0018]). SIP is a well known session initiation protocol. Therefore, it would have been obvious to use SIP to establish a session.

As to claim 23, note discussion of claim 11 for using SOAP to communicate in Beged-Dov. Sending notification is a typical communication. Therefore, it would have been obvious to use SOAP to communicate the notifications.

As to claim 24, providing a notification entry in a device profile is met by the callback service registration of conventional event publisher-consumer paradigm.

As to claims 31, 32, Beged-Dov teaches service request to write data from the external application to the local clipboard (resource copy), service request to read data from the local clipboard to the external application (resource paste).

As to claim 36, Beged-Dov as modified teaches a clipboard Application Programming Interface (API) coupled between the service request processing module and the local clipboard of the network entity (Maltby, CLIP SEND, CLIP RECEIVE).

As to claim 37, note discussion of claim 6.

5. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beged-Dov et al in view of Maltby as applied to claim 12 and further in view of Jones et al (Pub No. 2004/0172584).

As to claims 25, 26, Jones teaches clipboard communication, including marking the data at the external application with at least one keyword, differentiating the marked data from other data based on at least the keyword (namespaces associated with selected data to be pasted). See [0008] - [0010]. Therefore, it would have been obvious to mark data I Beged-Dov. One of ordinary skill in the art would have been motivated to combine the teachings of Beged-Dov as modified with Jones because this would have enhance the paste functionality ([0079], [0012]).

As to claims 27, 28, Jones teaches accepting service requests having one or more request arguments associated therewith, wherein the one or more arguments comprise any one or more of a data type, a format type, and a keyword (format type represented by namespace, [0008]-[0012]), accepting service requests having one or more keywords associated therewith (namespace, [0008]-[0012]). It is noted that the limitation "one or more" is interpreted as requiring one.

As to claim 29, Beged-Dov as modified teaches request to retrieve data from a local clipboard (Beged-Dov, resource paste), transferring the data and the one or more keywords associated with the data from the local clipboard to the external application (Maltby, namespace and selected data, [0008]-[0012]), clipboard web service (Beged-Dov, internet clipboard service).

As to claim 30, Jones teaches request to write data to the local clipboard of the first device (Beged-Dov, resource copy), transferring the data and the one or more keywords associated with the data from the external application to the local clipboard (Maltby, namespace and selected data, [0008]-[0012]), clipboard web service (Beged-Dov, internet clipboard service).

6. Applicant's arguments filed 4/4/2005 have been fully, considered but they are not persuasive.

Applicant argued that "[a]s the term is generally used in the computer arts, a "service" is a program (e.g., daemon) or similar function that is activated and awaits client requests. The Internet Clipboard Proxy could not be reasonably construed as a being a network "service"; because the Internet Clipboard Proxy has no means of accepting incoming network connections or requests. On the contrary, the Internet Clipboard Proxy of Beged-Dov acts purely as a client, because the Proxy provides user-initiated remote control of cut and paste actions that are thereafter activated at a server containing the Internet Clipboard Service. The Internet Clipboard Proxy of Beged-Dov merely allows copying resources between two Web servers using a client device without the client having to access the resources directly. In contrast, the Applicant's invention involves exposing the local clipboard of a computing device as a service over the network." (remarks, page 3).

The examiner respectfully disagrees. Contrary to applicant's characterization of a service being "a program (e.g., daemon) or similar function that is activated and awaits client requests", a service is typically characterized as a program or routine that provides support to other programs. Such a definition may be found in the Computer Dictionary by Microsoft Press, 3rd ed. 1997, page 430. There is no requirement of "is activated and awaits client requests" for being a service in the typical definition of a service. The Internet Clipboard Proxy of Beged-Dov allows copying of resources between two Web servers, which is providing support (resource transfer) to other programs (web servers). Therefore, the Internet Clipboard Proxy of Beged-Dov is a service. In fact, Beged-Dov uses the term service explicitly to describe the clipboard function / support (local internet clipboard service, [0018], line 17).

Applicant argued that "[I]n contrast, the Applicant's invention involves exposing the local clipboard of a computing device as a service over the network. In the Applicant's invention, the transfer of information from the local clipboard to the external application is initiated by receiving a transfer indication from the external application rather than from the user." (remarks, page 3).

The examiner's response is that as discussed in detail in the rejection of claim 40, Beged-Dov teaches exposing (via local internet clipboard proxy of the trusted internet clipboard service 114) the local clipboard (trusted internet clipboard service) as a service (resource transfer) towards external applications (web browser, source / destination web services) having access to the computing device via the network (internet 108), and receiving (local internet clipboard proxy, fig. 1) service requests (resource copy, resource paste) provided by the external applications. Beged-Dov, [0017] - [0018], fig.s 1-4. In Beged-Dov, the user interact with the web browser 106 which interact with the local internet clipboard 114 via proxy 110 ([0017], lines 15-31; [0018], lines 17-21; fig. 1). In Beged-Dov, the copy and paste functions are implemented as web services and thus available to external applications (web browser, source / destination web services).

Applicant further argued that Beged-Dov does not teach or suggest receiving a transfer indication from the external application, nor facilitating a transfer of information between the local clipboard and the external application in response to the transfer indication. (remarks, paragraph bridging pages 3 and 4).

The examiner's response is that Beged-Dov teaches receiving (via clipboard proxy 110) a transfer indication (resource copy/paste functions, fig. 2A, 213) from the external application (web browser, which forward user commands), and facilitating a transfer of information (resource copy) between the local clipboard and the destination application. Such transfers are in response to the transfer indication because the clipboard operations (steps 217 and 219) result from the transfer indication processing (steps 201-215).

Applicant further argued that Beged-Dov does not teach exposing a local clipboard of a first device as a service to a second device on over a network (remarks, page 4, last paragraph).

The examiner respectfully disagrees. Beged-Dov teaches exposing (providing local internet clipboard proxy 110 representing trusted internet clipboard service 114) a local clipboard (trusted internet clipboard service 114) of a first device (128) as a service (trusted internet clipboard service 114) to a second device (104) on over a network

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(108). Fig. 1. It is noted that the proxy 110 exposes (make available) the underlying internet clipboard service 114 to client computer 104.

Regarding applicant's argument that Maltby (remarks, pages 4-6) and Jones (remarks, pages 6-7) do not describe exposing the local clipboard of a computing device as a service, the examiner's response is that exposing the local clipboard of a computing device as a service is met by Beged-Dov, as discussed above.

Applicant's arguments are therefore not persuasive.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-8197 (toll-free).

June 14, 2005



SUE LAO
PRIMARY EXAMINER